

# SMART HOME SECURITY SYSTEM

~ IOT Based Door Access Control Using Face Recognition

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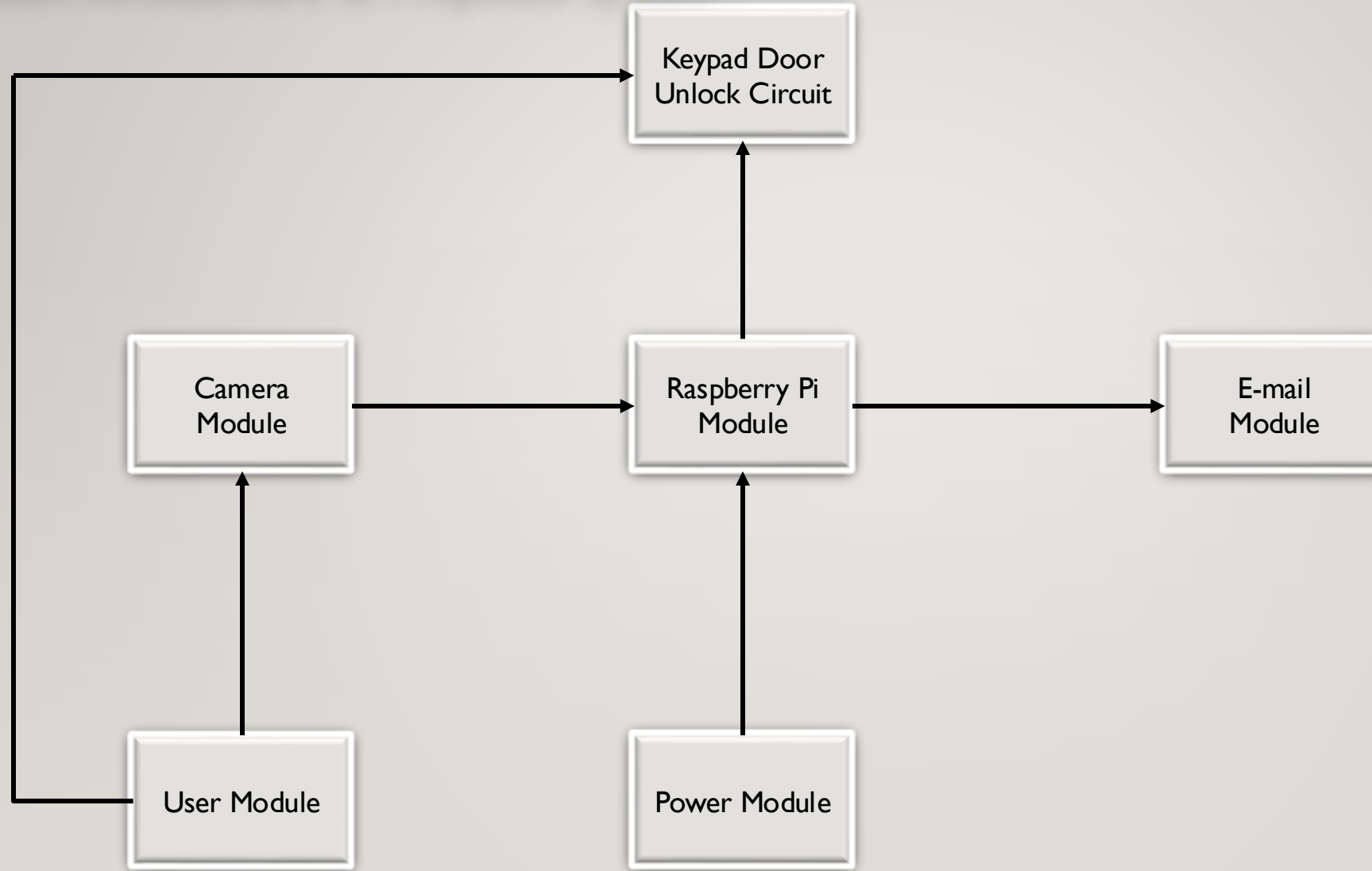
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## ➤ Background Of Project :

- Home Security is very useful application of IOT and we are using to create an inexpensive security system for Homes as well as industrial use.
- The System will inform the owner about any unauthorized entry or whenever the door is opened by sending a notification to the user.
- Human beings are recognized by their distinctive facial characteristics through in-built door-lock camera.
- In the Face-recognition approach, a given face is compared with the faces stored in the database in order to identify the person and the door will be Unlocked.

➤ System Architecture of Proposed System :



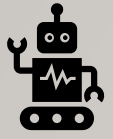


# Methodology :

The Model is Divided into Following Steps :

1. Gathering Data.
2. Image Capturing through Pi Camera.
3. Images Training and Comparing.
4. Authorized access to the Door.
5. Interacting with Email Module.





# Technology Stack :

- Raspberry-Pi
- Raspbian Operating System
- Pi Camera
- Image Processing Module
- OpenCV module
- Connecting Wires
- Rotational Motor

